

NEW GENERA AND SPECIES OF AMERICAN PHALANGIDA.

BY NATHAN BANKS.

Hadrobunus, gen. nov.

Body large; legs moderately slender, femur I much shorter than body, in female shorter than width of body, several false articulations in metatarsus I. Eyes of normal size, eye-tubercle of moderate size and with a few denticles above. No spines on anterior margin of the cephalothorax. Palpus without spines, last joint longer than penultimate, palpal claw dentate. The lateral pore opens upward. The dorsal integument is moderately hard. The abdomen shows a faint vase-mark.

Type—*Phalangium grande* Say.

This genus differs from *Liobunum* in shorter legs, from *Leptobunus* in the dentate palpal claw, and number of pale articulations in metatarsus I.

Leuronychus, gen. nov.

Similar in most respects with *Liobunum*, but with the palpal claw smooth, and without the lateral rows of teeth on the coxæ. It differs from *Leptobunus* in the longer legs. The mouth-parts are like *Liobunum*.

Type—*Liobunum pacificum* Banks.

Liobunum crassipalpis, sp. nov.

♂ Pale grayish above, with many small scattered brown spots, and a very distinct brown median vitta from the eye-tubercle to tip of abdomen, and scarcely enlarged in the middle; palpi pale yellow; venter and coxæ grayish white, trochanters brown, legs pale yellowish, patellæ and tips of tibiæ brownish.

Body long, tapering behind; eye-tubercle remote from the anterior margin, with a few small denticles above; palpi of normal length, the femur, patella and tibia plainly incrassate, the femur about two and one-half times as long as broad, plainly curved, all with denticles, the row on tarsus quite large; legs of moderate length, femur I as long as body, coxæ with some scattered granules, beside the usual row on each margin. Length 7.5 mm.

One specimen, probably from Washington, D. C.

Related to *Liobunum vittatum* Say, but distinct from that as well as from all our other species by the thick basal joints of the palpus.

Liobunum denticulatum, sp. nov.

Dorsum whitish, with a broad dark brown vase mark from eye-tubercle to tip of abdomen, giving off each side some brown marks which traverse the pale of the sides; coxæ and venter whitish; palpi and mandibles pale yellowish, trochanters and extreme bases of femora very dark brown, rest of legs pale yellowish, except the brown patellæ and a brown band on apex of each tibia; eye-tubercle of good size, remote

from the anterior margin, denticulate above; palpi rather longer than usual, in the male especially so, the femora being very long and curved, the tibia below, with a row of fine teeth, the tarsus curved; legs long and slender denticulate in rows on basal joints; abdomen of male rather small. Length, 5 mm.

Cuernavaca, Morelos, Mexico [Barrett].

Liobunum consimilis, sp. nov.

Dorsum brown, with some pale patches, no distinctive vase-mark; eye-tubercle small, without teeth; palpi pale yellowish; trochanters light brown, legs nearly uniform yellowish brown, the patellæ no darker, the tarsi rather lighter; male similar to female, but the legs are brown or nearly black, except on bases of femora; palpi not very long. Length, ♀ 5.5 mm.; ♂ 4.5 mm.

Cuernavaca, Morelos, Mexico [Barrett].

Hoplobunus, gen. nov.

Palpi armed above and below on femora with teeth, laterally on tibiæ and tarsi with bristle-bearing spines, a long claw at end of tarsus; mandibles very large, in the male enormous; hind coxæ not very large, the spiracles each side distinct; legs I and II slender, III and IV stouter and roughened, trochanter III plainly larger than others, metatarsus IV the longest; eye-tubercle large and on the anterior margin of cephalothorax, tipped with a spine, the eyes each side at base.

Type—*H. barretti*.

Hoplobunus barretti, sp. nov.

Cephalothorax yellow brown, blotched and veined with black; palpi and mandibles yellowish; legs yellowish brown, anterior pairs brown beyond base, segments of abdomen above and below brownish on apical part, yellowish on basal part; eye-tubercle large; close to anterior margin, conical, tipped with a prominent flattened tooth, eyes rather small at base of tubercle; mandibles large, first joint above with several teeth, in the male the second joint is enormous, very high above, reticulate with brown; femur of palpus compressed, with two rows of teeth above, the last of the inner row much larger than the others, below with many irregular teeth, patella short, roughened, tibia depressed, nearly as broad as long, each side with bristle-bearing tubercles, tarsus short, depressed, tipped with a long claw, nearly as long as the joint, each side of tarsus with a few bristle-bearing tubercles; legs roughened, pairs I and II slender; III with a very large trochanter, with a tooth in front and several behind, the femur with an angle at base below, and beyond roughened and toothed; patella with a large tooth below (not present in female); IV trochanter smaller than III, with a large tooth each side at tip, femur with a large tooth at base and apex below, a large one under patella, and two at tip of tibia (in female these are practically absent); each abdominal segment above and below bears a row of granules. Length without mandibles, 6.5 mm.

Cuernavaca, Morelos, Mexico [Barrett].

Scotolemon californica, sp. nov.

Pale, yellowish, dorsum of abdomen rather darker. Dorsum with small pointed granules, those on abdomen in transverse rows; eye-tubercle low, rounded, with

small granules close to the anterior margin, no eyes. Venter and coxæ with similar granules, often giving rise to a fine hair. Palpus large, stout; femur more than twice as long as broad, with about four pointed tubercles above and below on outer side 3 long spines toward base, one on inner side toward tip; patella nearly as long as the tibia, four tubercles above, and below on each side one long spine; tibia about two and one-fourth times as long as broad, with three spines below on each side, the middle one much the largest, the apical one next in size; tarsus about three-fourths the length of the tibia, with two spines below on each side, the basal one the larger; claw slender, nearly one-half as long as the tarsus. Mandibles with some tubercles in front and above. Legs slender, finely granulate; femur I reaches to tip of femur of palpus; the patellæ are larger than the other joints and quite long, the tarsus is divided into long slender joints, all clothed with fine short hairs. The posterior margin of each abdominal segment above and below is elevated. Length, 1.8 mm.

Several specimens from Alabaster Cave, California [Marx].

NOTES ON OVA AND LARVA OF HYPERCHIRIA PAMINA.

BY DR. R. E. KUNZÉ.

While collecting in Prescott, Ariz., found a ♀ *Pamina*, June 23, 1898, which oviposited, June 24th, one hundred eggs. I retained thirty, which hatched twenty days later, July 13th, 8 A.M., exact time for first larvæ to appear. I sent sixteen ova to Professor Packard, and gave the others to a friend on the Summit Mountains to raise if possible. Nights were very cool, and thought that no ova would hatch, so long in coming out.

Ovum white, a black spot on top. Length, 2 mm. Width, $1\frac{3}{4}$ mm. Shape subconical, depressed on sides. Ova laid in piles composed of parallel rows.

Young larvæ after hatching: length $5\frac{1}{2}$ –6 mm. when in motion, and 4 mm. at rest. Width of body $\frac{1}{3}$ mm. Color dull orange or buff, head black. Dorsum with double row of gray tubercles, surmounted by black bifurcated spine. A subdorsal row of tubercles of a greenish-gray. Lateral parts below covered with whitish hair. Head shining black, covered sparsely by whitish hair. Thoracic and prolegs concolorous with body. A few hours after hatching larva changed to a brownish color, spines black. Larvæ were fed on *Quercus undulata*.